Serial No. 10/698,040 filed October 30, 2003
Amendment dated February 1, 2008
in Response to Office Action of August 1, 2007

Remarks

Receipt is acknowledged of the Office Action of August 1, 2007. Reconsideration of the application and all necessary extensions of the time provided for response are respectfully requested. The Commissioner is hereby authorized to debit all amounts deemed required from Deposit Account No. 50-1604.

Requirement for Information

In the Office Action, the Examiner set forth a Requirement for Information under 37 C.F.R. §1.105. In response thereto, applicant has not authored or co-authored any publications which describe the disclosed subject matter of calculating vega with simultaneous calculation of option price, and has not relied on any publication to develop the invention, including the method of node vega calculation.

Drawings

With respect to the objection to Figure 1, the term "can be" has been replaced with "is". Also, the drawing has been annotated with 5(a) and 5(b). However, it should be noted that the two equations listed for Equation 5 are two forms of the same equation.

With respect to definitions, it is unclear as to which term the objection is referring to. It is respectfully noted that all of the terms in the equations are defined in the specification (other than common mathematical symbols and notation such as the partial derivative symbol, and so forth).

- 7 -

Serial No. 10/698,040 filed October 30, 2003
Amendment dated February 1, 2008
in Response to Office Action of August 1, 2007

Specification

With respect to the objection to the specification, to obviate the rejection the specification has been amended to copy the equations from the drawings into page 8, as attached. However, it is noted that the drawings are part of the description as originally, such that antecedent basis was provided for the claimed subject matter, and such that no new matter has been added. With respect to definitions of the terms, if there is a specific term in question, a reference in the Office Action to that term is requested so that it can be addressed. Otherwise, it is respectfully requested that the objections be withdrawn, since all of the terms in the equations are defined in the specification.

Rejections under 35 U.S.C. §112

In the Office Action, various of the claims were rejected under 35 U.S.C. §112, second paragraph. Further thereto, the claims have been amended to include Equation 5(b) therein. Accordingly, reconsideration and withdrawal of the rejections is respectfully requested.

Rejections under 35 U.S.C. §101

In the Office Action, the claims were rejected under 35 U.S.C. §101. To facilitate an allowance, the claims have been amended to recite a computing device as recited above. Reconsideration is respectfully requested.

However, it is respectfully noted the claims as previously presented were not merely directed to a mathematical algorithm. Rather, they were directed to a practical application with respect to

- 8 -

financial instruments using a computer implemented method. Accordingly, Applicant reserves the right to pursue method claims in a continuation application.

In view of the amendment, reconsideration and withdrawal of the rejection is respectfully requested.

Rejections under 35 U.S.C. §102 and 103(a)

In the Office Action, the claims were also rejected under 35 U.S.C. §102 and 103(a) based upon Makivic (U.S. Patent No. 6,061,662). To facilitate an allowance, the claims as originally presented have been amended as set forth above without prejudice to pursuit of the original claims in a continuation application. Reconsideration of the rejections is respectfully requested.

With respect to claims 1 and 5, Applicant's "node vega" is a novel specific quantity calculated in a specific way for the implied volatility determination covered by the claim, and is different both from the conventionally recognized "vega" of an option (also known as "kappa", defined as the theoretical value of the option price's partial derivative with respect to implied volatility), and from Makivic's "vega" (which is a sum of calculated quantities over a set of randomly generated path). As merely one example, the present devices calculate the exact derivative of the option price with respect to the volatility, as opposed to Makivic's method which does not.

Nor is the present machine obvious over the art. For example, Makivic's "vega" is (a) not specific to a particular underlying asset price level and (b) is not an exact calculation, but rather a statistical measure (averaged over many random paths).

- 9 -

Serial No. 10/698,040 filed October 30, 2003
Amendment dated February 1, 2008
in Response to Office Action of August 1, 2007

Likewise, with respect to claims 3 and 7, it is also believed that Makivic's "vega" is not directly calculable for American options. Although the Office Action stated that Makivic discloses calculation of implied volatility for American options at col 3, line 14-15, in fact the citation very generally refers to a method to "evaluate American options", not to use of a node vega for calculation of implied volatility for American options as required by the pending claims. Unless a cite in the reference is alleged to disclose a specific method having the claimed limitations, it is submitted that those claims are also patentable in view of the limitations therein.
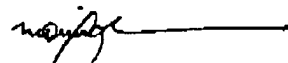
Furthermore, it is also noted that the scope of option pricing models to which the present invention can be applied, including, for example, CRR, is beyond what is taught or suggested by Makivic.

Lastly, it is intended that the scope of the pending claims cover a computing machine having any software or hardware for implementing the limitations recited therein.

Accordingly, in view of the foregoing, reconsideration of the rejections is requested. Favorable action on the application is respectfully requested and believed fully warranted.

Dated: February 1, 2008   Respectfully submitted,

                                                 Morris E. Cohen (Reg. No. 39,947)
                                                 1122 Coney Island Avenue, Suites 216-217;
                                                 Brooklyn, New York 11230-2345
                                                 (718) 859-8009 (phone)
                                                 (718) 859-3044 (fax)

- 10 -